

What is Syphilis?

Syphilis is a sexually transmitted disease (STD) caused by the bacteria *Treponema pallidum*. It has often been called “the great imitator” because so many of the signs and symptoms are indistinguishable from those of other diseases.

How common is Syphilis?

In the United States, health officials reported 46,042 cases of syphilis in 2011, including 13,970 cases of primary and secondary (P&S) syphilis. Cases among males, and particularly among men who have sex with men (MSM), have increased since 2000. The rate of P&S syphilis increased 3.8% among men (from 7.9 cases to 8.2 cases per 100,000 men) between 2010 and 2011. These cases have been associated with high rates of HIV co-infection and high-risk sexual behavior. Case rates are lower among women; the rate of P&S syphilis decreased 9.1% among women from 2010 to 2011, from 1.1 to 1.0 cases per 100,000 women. Finally, after an increase of 18% during 2006-2008, the overall rate of congenital syphilis decreased, from 10.5 to 8.5 cases per 100,000 live births during 2008-2011. This decrease in the rate of congenital syphilis likely reflects the decrease in the rate of P&S syphilis among women during 2008-2011.

The number of syphilis cases in Iowa is increasing as well. Total syphilis case numbers increased from 29 in 2005 to 70 in 2011.

How do people get syphilis?

Syphilis is passed from person to person through direct skin-to-skin contact with a syphilis sore. Sores occur mainly on the external genitals (private areas), vagina, anus, or in the rectum. Sores also can occur on the lips and in the mouth. Transmission of the organism occurs during vaginal, anal, or oral sex. Pregnant women with the disease can pass it to the babies they are carrying. Syphilis cannot be spread through contact with toilet seats, doorknobs, swimming pools, hot tubs, bathtubs, shared clothing, or eating utensils.

What are the signs and symptoms in adults?

Many people infected with syphilis do not have any symptoms for years, yet remain at risk for late complications if they are not treated. Although transmission appears to occur from persons with sores who are in the primary or secondary stage, many of these sores are unrecognized. Thus, most transmission is from persons who are unaware of their infection.

Primary Stage -The primary stage of syphilis is usually marked by the appearance of a single sore (called a chancre), but there may be multiple sores. The time between infection with syphilis and the start of the first symptom can range from 10 to 90 days (average 21 days). The sore is usually firm, round, small, and painless. It appears at the spot where syphilis bacteria entered the body. The sore lasts 3 to 6 weeks, and it heals without treatment. However, if proper treatment is not administered, the infection progresses to the secondary stage.

Secondary Stage - A skin rash and sores in the mouth or private areas will begin in the secondary stage. This stage usually starts with the development of a rash on one or more areas of the body. The rash usually does not cause itching. Rashes associated with secondary syphilis can appear as the primary sore is healing or several weeks after the sore has healed. The usual rash of secondary syphilis appears to be rough, red, or reddish brown spots on the palms of the hands and the bottoms of the feet. However, rashes with a different appearance may occur on other parts of the body, sometimes resembling rashes caused by other diseases. Sometimes rashes associated with

secondary syphilis are so faint that they are not noticed. In addition to rashes, symptoms of secondary syphilis may include fever, swollen glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue. The signs and symptoms of secondary syphilis will go away with or without treatment, but without treatment, the infection will progress to the latent and late stages of disease.

Late Stage - The latent (hidden) stage of syphilis begins when secondary symptoms (the rash) disappear. Without treatment, the infected person will continue to have syphilis even though there are no signs or symptoms; the infection remains in the body. In the late stages of syphilis, it may damage the internal organs, including the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints. This internal damage may show up many years later. Signs and symptoms of the late stage of syphilis include difficulty with muscle movements, paralysis, numbness, gradual blindness, and memory loss. This damage may be serious enough to cause death.

How does syphilis affect a pregnant woman and her baby?

The syphilis bacteria can infect the baby of a woman during her pregnancy. Depending on how long a pregnant woman has been infected, she may have a high risk of having a stillbirth (a baby born dead) or of giving birth to a baby who dies shortly after birth. An infected baby may be born without signs or symptoms of disease. However, if not treated immediately, the baby may develop serious problems within a few weeks. Untreated babies may become developmentally delayed, blind, deaf, have seizures, or die. Pregnant women **MUST** be treated with long-acting benzathine penicillin during pregnancy to reduce the risk of transmitting the infection to their unborn child. Please see the Centers for Disease Control and Prevention STD Treatment Guidelines 2010 for more information: www.cdc.gov/std/treatment/2010/default.htm.

How is syphilis diagnosed?

A blood test is the usual way to determine whether someone has syphilis. Shortly after infection occurs, the body produces a response to the syphilis bacteria, called antibodies. The antibodies can be detected by an accurate, safe, and inexpensive blood test. A low level of antibodies will stay in the blood for months or years even after the disease has been successfully treated. Because untreated syphilis in a pregnant woman can infect and possibly kill her developing baby, every pregnant woman should have a blood test for syphilis.

What is the link between syphilis and HIV?

Genital sores caused by syphilis make it easier for syphilis to enter the body and for a person to acquire HIV infection sexually. Having other STDs is also an important predictor for becoming HIV infected, because STDs are acquired by having unprotected sex.

What is the treatment for syphilis?

Syphilis is easy to cure in its early stages. A single injection of penicillin, an antibiotic, will cure a person who has had syphilis for less than a year. Additional doses are needed to treat someone who has had syphilis for longer than a year. For people who are allergic to penicillin, other antibiotics are available to treat syphilis. However, if a woman is pregnant and is allergic to penicillin, she must see her doctor so they can treat the allergy, because she must be treated with penicillin so her baby is not infected. There are no home remedies or over-the-counter drugs that will cure syphilis. Treatment will kill the syphilis bacteria and prevent further damage, but it will not repair damage that has already occurred.

Because effective treatment is available, it is important that persons be screened for syphilis on an on-going basis if they participate in unprotected sex.

Persons who receive syphilis treatment must abstain from sexual contact with new partners until the syphilis sores are completely healed. Persons with syphilis must notify their sex partners so that they also can be tested and receive treatment if necessary.

Will syphilis recur?

Having syphilis once does not protect a person from getting it again. Following successful treatment, people can still be susceptible to re-infection. Only laboratory tests can confirm whether someone has syphilis. Because syphilis sores can be hidden inside the mouth or private areas, it may not be obvious that a sex partner has syphilis. Talking with a healthcare provider will help to determine the need to be re-tested for syphilis after treatment has been received.

How can syphilis be prevented?

- The surest way to avoid transmission of sexually transmitted diseases, including syphilis, is to abstain from sexual contact or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to not have syphilis.
- Avoiding alcohol and drug use may also help prevent transmission of syphilis because these activities may lead to risky sexual behavior. It is important that sex partners talk to each other about their HIV status and history of other STDs so that preventive action can be taken.
- Sores from STD's, like syphilis, can occur in both the male and female private areas. You can prevent contact with the sore by using a latex condom. Correct and consistent use of latex condoms can reduce the risk of syphilis, genital herpes and other STD's, only when the infected area or site of potential exposure is protected.
- Condoms lubricated with spermicides (especially Nonoxynol-9 or N-9) are no more effective than other lubricated condoms in protecting against the transmission of STDs. Based on findings from several research studies, N-9 may itself cause genital lesions, providing a point of entry for HIV and other STDs. In June 2001, the CDC recommended that N-9 not be used as a microbicide or lubricant during anal intercourse.
- Transmission of a STD, including syphilis cannot be prevented by washing the genitals, urinating, and or douching after sex. Any unusual discharge, sore, or rash, particularly in the groin area, should be a signal to refrain from having sex and to see a doctor immediately.

Where can I get more information?

Iowa Department of Public Health STD Program
www.idph.state.ia.us/HivStdHep/

Division of STD Prevention (DSTDP)
Centers for Disease Control and Prevention
www.cdc.gov/std

Personal health inquiries and information about STDs:
CDC National STD and AIDS Hotlines
(800) 227-8922 or (800) 342-2437
En Espanol (800) 344-7432
TTY for the Deaf and Hard of Hearing (800) 243-7889

STD Treatment Guidelines:
[Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines 2010.](http://www.cdc.gov/std/treatment/2010)